WHAT IS CLAIMED IS:

1. A direct conversion circuit comprising:

first and second mixers to which radio frequency signals are input, said radio frequency signals being obtained from a single signal input;

an oscillator for supplying the first and second mixers with local oscillation signals whose phases are orthogonal to each other;

a baseband processing circuit for processing baseband signals output from the first and second mixers; and

a level-difference correcting circuit in a stage before the first and second mixers, the level-difference correcting circuit adjusting the two baseband signals input to the baseband processing circuit so that levels of both baseband signals are equal to each other by changing relative levels of the radio frequency signal input to the first mixer and the radio frequency signal input to the second mixer.

2. A direct conversion circuit according to claim 1, wherein a level correcting voltage corresponding to a difference in level between the two baseband signals input to the baseband processing circuit is output from the baseband processing circuit and is input to the level-difference correcting circuit.

3. A direct conversion circuit according to claim 1, wherein the level correcting voltage is a balanced voltage.

4. A direct conversion circuit according to claim 1, wherein the change in level of the radio frequency signal input to the first mixer and the radio frequency signal input to the second mixer is differential.

5. A direct conversion circuit according to claim 2, wherein:

the level-difference correcting circuit includes:

first and second transistors differential-connected to each other and having bases between which the radio frequency signal is input;

third and fourth transistors having emitters connected to a collector of the first transistor, and

fifth and sixth transistors having emitters connected to a collector of the second transistor;

load resistors are respectively connected to collectors of the third to sixth transistors;

radio frequency signals output from the collectors of the first and third transistors are input to the first mixer and radio frequency signals output from the collectors of the second and fourth transistors are input to the second mixer; and

the level correcting voltage is input between the bases of the third and sixth transistors and is input between bases of the fourth and fifth transistors.

6. A direct conversion circuit according to claim 5,

wherein the level correcting voltage is a balanced voltage.

7. A method of equalizing the in-phase and quadrature signal levels of a direct-conversion receiver comprising:

deriving a plurality of radio frequency signals from a single input source;

amplifying each of the plurality of radio frequency signals in amplifiers whose gain is variable;

applying the amplified signals to in-phase and quadrature mixers to perform downconversion;

low-pass filtering the donwconversion output of the mixers;

digitizing the low-pass filtered in-phase and quadrature signals;

determining the difference in amplitude between the digitized in-phase and quadrature signals; and

adjusting the gain of each of the variable gain amplifiers such that the in-phase and quadrature signals are of equal amplitude at the input to the digitizer.

8. A means for equalizing the in-phase and quadrature signal levels of a direct-conversion receiver comprising:

means for providing a plutality of signals from the same input source;

means for quatrature downconverting the pluralaity of signals;

means for low-pass filtering the plurality of downconverted signals;

means for digitizing the plurality of downconverted signals;

means for determining the difference in amplitude between the plurality of digitized signals;

means for adjusting the amplitude of the plurality of signals at a point between the signal input source and the downconversion means such that the difference in amplitude between the plurality of signals at an input of the digitizing means is zero.